Forrestal Nature Preserve Wetland Restoration Project

The Palos Verdes Peninsula Land Conservancy (PVPLC) received funding in August 2003 to implement a wetland restoration project at the Forrestal Nature Preserve in Rancho Palos Verdes, CA. A blue-line stream runs through the 160-acre preserve, creating optimal conditions for wetlands. Unfortunately, past disturbances at the preserve (mining, quarry activities, and offroad motorcycling) and proximity to human encroachment have introduced non-native vegetation to the site. Areas that once supported native willows, mulefat, and mugwort, were overwhelmed by palm trees (*Washingtonia species*), castor bean (*Ricinus communis*), tree tobacco (*Nicotiana glauca*), myoporum (*Myoporum laetus*), fig (*Ficus carica*), and ash (*Fraxinus uhdei*).

Work began in mid-August 2003. The project was separated into two areas, the upper draw of the canyon and the lower draw. PVPLC staff initiated work in the upper draw, extracting two palm trees from the streambed. The majority of labor costs and volunteer hours were spent removing cut portions of the palm trees from the work area to a green waste container approximately ½ a mile walk from the upper draw. This portion of the project involved 27 community members in various capacities. A steering committee that observes the management of the property reviewed the plan, made suggestions, and canvassed the surrounding neighborhoods with flyers advertising volunteer workdays. Community members, with PVPLC staff supplementing removal efforts, hauled the remains of the vegetation from the work site to the green waste containers. It became immediately clear that this portion of the project would be the most labor intensive.

The Los Angeles Conservation Corps (LACC), with funding from Proposition 50, agreed to reconstruct a portion of trail that passes through the upper draw. This particular footpath is an integral part of the trail plan that has been created for the nature preserve. It is the only connection that a large residential population has to the nature preserve. Heavy use, combined with erosion, had left the path in disrepair. Without immediate attention, this slope would have continued to degrade and affect not only accessibility, but also the establishment of

native plants in the riparian area. Crewmembers spent five days in December building a retention wall and leveling off the upper bank's trail. The reconstructed trail will help stabilize the stream bank and benefit the overall success of the project.

Extraction efforts in the lower draw were initiated in early October. This area differed from the previous work site with the presence of dense stands of pampas grass (*Cortaderia selloana*). Two palm trees, three myoporums, one Brazilian peppertree (*Schinus terebinthifolius)* and the remains of the pampas grass were removed after extraction by PVPLC staff. In addition to their trail building efforts, the LACC volunteered over 140 hours in the removal of these non-native species.

It became apparent that the pampas grass in the lower draw would continue to develop without the use of chemicals. The PVPLC applied for herbicide through the Los Angeles Weed Management Area, an organization of restoration professionals who maintain weed abatement supplies. The PVPLC presented its project and received 2.5 gallons of Rodeo, a herbicide approved for use in wetland areas. Remains of the pampas grass were treated on two occasions and no new growth has been observed.

The final phase of the riparian restoration project was initiated in February 2004. Eight community members volunteered to plant the lower draw of the quarry bowl. 60 willow trees (*Salix sp.)*, 50 mulefat (*Baccharis salicifolia)*, 27 mugwort (*Artemesia douglasiana)*, and 22 giant rye grass (*Leymus condensatus*) were planted where palm trees once stood. The perennial flow of the spring will provide these native plants with ample amounts of water.

The PVPLC sponsored an Eagle Scout project that planted the upper draw of the canyon. On February 29, 40 scouts worked to revegetate the draw and strengthen the banks of the riparian area. 140 willow trees, 60 mulefat, 33 giant-rye grass, and 27 mugwort were planted by the boy scouts. In this phase of the project, over 250 volunteer hours were donated to the restoration of the riparian area.

The most impressive aspect of this restoration project was the quantity of community members involved in each stage. Steering Committee members, neighborhood associations, LACC crewmembers, and boy scouts totaled close to 80 people, with over 1,000 volunteer hours donated to the wetland restoration project. A variety of people were exposed to the importance of wetlands and how their involvement in a restoration project can be so effective.

Before Non-Native Removal
Lower Draw

After Removal
Lower Draw

After Removal
Upper Draw

Riparian Planting
Upper Draw